

What is claimed is:

1 1(Previously presented). A device for processing a surface of an object
2 comprising:
3 at least one processing station;
4 a conveying unit, by which objects are transported into desired
5 positions at said processing station;
6 a central controller, by which functions of said conveying unit and of
7 said processing station are synchronized by a clock pulse correlated with
8 transport of each said object and wherein said central controller controls each
9 said processing station.

2(withdrawn). The device according to claim 1, wherein said processing station further comprises a printing unit.

3(withdrawn). The device according to claim 2, wherein at least one of said printing units further comprises an inkjet printing head.

4(withdrawn). The device according to claim 3, wherein at least one of said printing units further comprises a printing roller.

5(withdrawn). The device according to claim 3, wherein at least one of said processing stations further comprises an inspection unit.

6(withdrawn). The device according to claim 1, wherein said objects are symmetrical about a rotational axis.

7(withdrawn). The device according to claim 6, wherein said objects are selected from the group consisting of beverage cans, beverage bottles or cups.

8(withdrawn). The device according to claim 1, wherein said conveying unit comprises a rotary cycle apparatus, on which said objects are arranged in the circumferential direction and may each be set into rotation by means of a conveyor drive means.

9(withdrawn). The device according to claim 8, wherein said objects are each rotationally journaled with respect to their axis of rotation.

10(withdrawn). The device according to claim 1, wherein starting signals are generated in the central controller, by which individual processing stations may be started independently.

1 11(previously presented). The device according to claim 1, wherein by
2 predetermining a duration of transmission of said clock pulse to a processing
3 station, a duration of a function of said processing station may be predefined
4 by the central controller.

1 12(previously presented). The device according to claim 11, wherein at least
2 one incremental encoder is provided for detecting a rotary position of said
3 objects.

1 13(previously presented). The device according to claim 12, wherein said
2 conveyer drive means generate rotation in dependence upon signals of said
3 incremental encoder for position control.

1 14(previously presented). The device according to claim 13, wherein a lead
2 frequency defining the clock pulse may be preset by said central controller.

1 15(previously presented). The device according to claim 14, wherein said
2 lead frequency may be adjusted

1 16(previously presented). The device according to claim 14, wherein said
2 lead frequency is transmitted to a computing unit for synchronizing rotation of
3 said objects generated by said conveyer drive means to said processing
4 stations.

1 17(previously presented). The device according to claim 16, wherein said
2 computing unit is stationary.

1 18(previously presented). The device according to claim 16, wherein said
2 computing unit is arranged on said rotary cycle apparatus.

1 19(previously presented). The device according to claim 16, wherein said
2 lead frequency and the signals of said incremental encoders constitute input
3 quantities for position control of the respective conveyer drive means.

1 20(previously presented). The device according to claim 16, wherein said
2 lead frequency may be adapted to operating frequencies of said processing
3 stations.

1 21(previously presented). The device according to claim 20, wherein said
2 lead frequency is an operating frequency of inkjet droplets of an inkjet printing
3 head.

22-28: (Canceled)

29(withdrawn). A device for processing the surface of an object
comprising;

at least one processing station;

a conveying unit, by which said object is transported into desired
positions at said processing station;

a central controller, by which the functions of said conveying unit and said processing stations are synchronized by presetting a clock pulse being correlated with the transport of said object, and wherein said central controller controls for each processing station; and,

wherein said clock pulse is derived from the cyclically and currently detected position values and detection times of the position values derived from the transport of the object being processed.

30(withdrawn). The device according to claim 29, wherein the position values and the detection times of the position values of said objects are detected by an incremental encoder and stored as data sets in an evaluation unit.

31(withdrawn). The device according to claim 30, wherein said clock pulse for a processing station comprises a series of counting pulses derived from the data sets stored in said evaluation unit and follow the increments of the respective incremental encoder.

32(withdrawn). The device according to claim 31, wherein said counting pulses are generated in a frequency generator controlling a processing station.

33(withdrawn). The device according to claim 32, wherein the output signals generated by said frequency generator are re-read into said central controller.

34(withdrawn). The device according to claim 33, wherein control loops for generating said counting pulses are provided in said central controller, and wherein said re-read output signals of said frequency generators constitute instantaneous values of said control loops.

35(withdrawn). The device according to claim 31, wherein the intervals of the individual counting pulses are shorter than the cycle time of said central controller.